UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,599	10/03/2006	Wilhelmus Hendrikus Alfonsus Bruls	NL 040361	1451

24737   7590   01/04/2011
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EXAMINER
HOLDER, ANNER N

ART UNIT	PAPER NUMBER
2483	

MAIL DATE	DELIVERY MODE
01/04/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/599,599	BRULS ET AL.
	Examiner	Art Unit	
	ANNER HOLDER	2483	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 October 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3 and 6-9</u> is/are rejected.

7)☒ Claim(s) <u>4 and 5</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 October 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☒ All b)☐ Some * c)☐ None of:

    1.☒ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20110102

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Drawings

2.   Figures 1-2 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated.   See MPEP § 608.02(g).   Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

3.   Claims 4 and 5 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

4.   The following is a statement of reasons for the indication of allowable subject

matter: the blending factor computation in the decoder for transmission errors in the

enhancement layer as disclosed by applicant is neither taught or suggested by the cited

prior art.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-3, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hughes, JR et al. US 2001/0038746 in view of Challapali et al. US 6,870,886

further in view of Aign et al. "Temporal & Spatial Error Concealment Techniques for

Hierarchical MPEG-2 Video Codec", Communications - Gateway to Globalization.

Proceedings of the conference on communications (ICC). Seattle. June 18-22, 1995,

IEEE, VOL. 3 June 18, 1995 (1995-06-18), Page 1778-17783, XP000535053.

7.   As to claim 1, Hughes teaches a device (114b, 114d) for receiving video data,

[abstract; fig. 5; fig. 6; ¶ 0042-0043] the video data comprising a base layer data (B) [fig.

5 (304); fig. 6; ¶ 0042-0044] and at least one enhancement layer data (E), [fig. 5 (306);

fig. 6; ¶ 0042-0046] the device (114b, 114d) also being arranged to decode the base

layer data (B) and the enhancement layer data (E) into a full-quality video signal, [figs.

5-6; ¶ 0042-0046] the device (114b, 114d) further being arranged to decode only the

base layer data (B) into a basic-quality video signal, [fig. 5; ¶ 0045]

 Hughes does not explicitly teach the device (114b, 114d) being arranged to delay the

base layer data (B) and the enhancement layer data (E),

Challapali the device (114b, 114d) being arranged to delay the base layer data (B) and

the enhancement layer data (E), [col. 6 lines 24-37]

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate the video signal delay of Challapali with the device of Hughes

allowing for improved coding efficiency.

Hughes teaches the use of only the base layer data [figs. 5-6; ¶ 0042-0046] and the

transmission to remote devices. [¶ 0051]

However Hughes (modified by Challapali) does not explicitly teach characterized in that

the device (114b, 114d) is arranged to gradually blend the full-quality video signal with

the basic-quality video signal when a first transmission fluctuation occurs, the first

transmission fluctuation being defined as receiving the base layer data (B) and the

enhancement layer data (E) in a first instant, and receiving only the base layer data (B)

in a subsequent instant.

Aign teaches characterized in that the device (114b, 114d) is arranged to gradually

blend the full-quality video signal with the basic-quality video signal when a first

transmission fluctuation occurs, [4.4 Error Concealment in MPEG-2 Spatial Scalable

Profile, page 1780 ¶ 1 – 4.5 Error Concealment in MPEG-2 SNR callable Profile, page

1781 ¶ 1, due to errors in the transmission in enhancement layer of video the up-scaled

base layer data is blended with the full quality video, corresponding to the use of

blending factors for erroneous received data and another blending factor for data that

received correctly] the first transmission fluctuation being defined as receiving the base

layer data (B) and the enhancement layer data (E) in a first instant, and receiving only

the base layer data (B) in a subsequent instant. [4.4 Error Concealment in MPEG-2 Spatial Scalable Profile, page 1780 ¶ 3 – 4.5 Simulation Results, page 1782 ¶ 2, There are time instances where the base and enhancement layer is correctly received and others where only base layer data is correctly received]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the error concealment technique of Aign with the device of Hughes (modified by Challapali) allowing for improved image quality.

8.   As to claim 2, Hughes (modified by Challapali) teaches wherein a second transmission fluctuation occurs when receiving only the base layer data (B) in a first instant, and receiving the base layer data (B) and the enhancement layer data (E) in a subsequent instant, [Aign - 4.4 Error Concealment in MPEG-2 Spatial Scalable Profile, page 1780 ¶ 1 – 4.5 Error Concealment in MPEG-2 SNR callable Profile, page 1781 ¶ 1, due to errors in the transmission in enhancement layer of video the up-scaled base layer data is blended with the full quality video, corresponding to the use of blending factors for erroneous received data and another blending factor for data that received correctly; Hughes - figs. 5-6; ¶ 0042-0046] the device (114b, 114d) being arranged to gradually blend the basic-quality video signal with the full-quality video signal when the second transmission fluctuation occurs. [Aign - [4.4 Error Concealment in MPEG-2 Spatial Scalable Profile, page 1780 ¶ 3 – 5 Simulation Results, page 1782 ¶ 2, There are time instances where the base and enhancement layer is correctly received and others where only base layer data is correctly received; Hughes - figs. 5-6; ¶ 0008; ¶ 0022; ¶ 0044-0046]

9.   As to claim 3, Hughes (modified by Challapali and Aign) teaches the device
(114b, 114d) comprising a first delay element (308) and a second delay element (310),
wherein the first delay element (308) is arranged to delay the base layer data (B), and
wherein the second delay element (310) is arranged to delay the enhancement layer
data (E). [Challapali - col. 6 lines 24-37]

10.   As to claim 6, Hughes (modified by Challapali and Aign) teaches wherein the
basic-quality video signal represents a sequence of images with a relatively low
resolution, [Hughes - abstract; ¶ 0002; ¶ 0009; ¶ 0022] and wherein the full-quality video
signal represents a sequence of images with a relatively high resolution. [Hughes -
abstract; ¶ 0002; ¶ 0009; ¶ 0022]

11.   As to claim 7, Hughes (modified by Challapali and Aign) teaches a spatial-
sharpness improvement unit (402), the spatial-sharpness improvement unit (402) being
arranged to up-scale the basic-quality video signal, the spatial-sharpness improvement
unit (402) further being arranged to improve the spatial sharpness of the images
represented by the basic-quality video signal. [Aign - 4.4 Error Concealment in MPEG-2
Spatial Scalable Profile, page 1780 ¶ 1 – 5 Simulation Results, page 1782 ¶ 2,

12.   As to claim 8, Hughes (modified by Challapali and Aign) teaches an in-home
wireless connected system comprising a device (114b, 114d) according to claim 1.
[Hughes - ¶ 0051]

13.   As to claim 9, Hughes teaches method for receiving video data, [abstract; fig. 5;
fig. 6; ¶ 0042-0043] the video data comprising a base layer data [fig. 5 (304); fig. 6; ¶
0042-0044] (B) and at least one enhancement layer data (E), [fig. 5 (306); fig. 6; ¶ 0042-

0046] wherein the base layer data (B) and the enhancement layer data (E) are decoded into a full-quality video signal, [fig. 5 (306); fig. 6; ¶ 0042-0046] and wherein the base layer data (B) is decoded into a basic-quality video signal, [fig. 5; ¶ 0045]

Hughes does not explicitly teach wherein the base layer data (B) and the enhancement layer data (E) are delayed.

Challapali teaches the device (114b, 114d) being arranged to delay the base layer data (B) and the enhancement layer data (E), [col. 6 lines 24-37]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the video signal delay of Challapali with the device of Hughes allowing for improved coding efficiency.

Hughes teaches the use of only the base layer data [figs. 5-6; ¶ 0042-0046] and the transmission to remote devices. [¶ 0051]

However Hughes (modified by Challapali) does not explicitly teach characterized in that the method gradually blends the full-quality video signal with the basic-quality video signal when a first transmission fluctuation occurs, the first transmission fluctuation being defined as receiving the base layer data (B) and the enhancement layer data (E) in a first instant, and receiving only the base layer data (B) in a subsequent instant.

Aign teaches characterized in that the method gradually blends the full-quality video signal with the basic-quality video signal when a first transmission fluctuation occurs, [4.4 Error Concealment in MPEG-2 Spatial Scalable Profile, page 1780 ¶ 1 – 4.5 Error Concealment in MPEG-2 SNR callable Profile, page 1781 ¶ 1, due to errors in the transmission in enhancement layer of video the up-scaled base layer data is blended

with the full quality video, corresponding to the use of blending factors for erroneous received data and another blending factor for data that received correctly]   the first transmission fluctuation being defined as receiving the base layer data (B) and the enhancement layer data (E) in a first instant, and receiving only the base layer data (B) in a subsequent instant. [4.4 Error Concealment in MPEG-2 Spatial Scalable Profile, page 1780 ¶ 3 – 5 Simulation Results, page 1782 ¶ 2, There are time instances where the base and enhancement layer is correctly received and others where only base layer data is correctly received]

 It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the error concealment technique of Aign with the device of Hughes (modified by Challapali) allowing for improved image quality.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-W, M-W 8 am-3 pm EST.

       If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Ustaris can be reached on 571-272-7383. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/
Examiner, Art Unit 2483